

BRIEF FOR APPELLEE DIRECTOR OF THE
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

03-1372
(Serial No. 09/515,060)

IN RE RAYMOND ANTHONY JOAO

Appeal from the United States Patent and Trademark Office,
Board of Patent Appeals and Interferences

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TABLE OF CONTENTS

I.	STATEMENT OF THE ISSUE	1
II.	STATEMENT OF THE CASE	2
III.	STATEMENT OF THE FACTS	2
	A. Joao's Invention	2
	B. The Prior Art	4
	1. Houstis	5
	2. Dunn	5
	3. Dwyer	7
	4. Goldberg	7
	5. Hamalainen	8
	C. The Board Decision	9
IV.	SUMMARY OF THE ARGUMENT	11
V.	ARGUMENT	13
	A. Standard of Review	13
	B. Representative Claim 1 Would Have Been Obvious In View of Houstis and Dunn	14
	1. It Is Undisputed That Houstis And Dunn Disclose Every Element Of Representative Claim 1	14

2.	One Of Ordinary Skill In The Art Would Have Been Motivated To Add Dunn’s Reminder Features To Houstis’ Interactive Multimedia System	17
a.	Houstis and Dunn are not “radically different” as Joao alleges	18
b.	The Board relied on the explicit teachings of the prior art, not hindsight, to combine Houstis and Dunn	21
C.	Dependent Claims 12-15, 22 And 23 Would Have Been Obvious In View Of Additional Prior Art	23
1.	Dependent Claim 12 Would Have Been Obvious In View of Houstis, Dunn, And Dwyer	23
2.	Dependent Claim 15 Would Have Been Obvious In View of Houstis, Dunn, And Hamalainen	24
3.	Dependent Claims 13, 14, 22, and 23 Would Have Been Obvious In View of Houstis, Dunn, And Goldberg	24
4.	Joao Does Not Address The Evidence Of Record With Respect To The Dependent Claims, And Thus Fails To Rebut The Prima Facie Case Of Obviousness	26
VI.	CONCLUSION	28

TABLE OF AUTHORITIES

Cases

<i>Caveney, In re</i> , 761 F.2d 671 (Fed. Cir. 1985)	13
<i>Consolidated Edison Co. v. NLRB</i> , 305 U.S. 197 (1938)	13
<i>Dembiczak, In re</i> , 175 F.3d 994 (Fed. Cir. 1999)	22
<i>Gartside, In re</i> , 203 F.3d 1305 (Fed. Cir. 2000)	13, 17
<i>Glaug, In re</i> , 283 F.3d 1335, 1338 (Fed. Cir. 2002)	26
<i>Gurley, In re</i> , 27 F.3d 551 (Fed. Cir. 1994)	21
<i>Hyatt, In re</i> , 211 F.3d 1367 (Fed. Cir. 2000)	18
<i>Jolley, In re</i> , 308 F.3d 1317 (Fed. Cir. 2002)	14
<i>King, In re</i> , 801 F.2d 1324 (Fed. Cir. 1986)	13
<i>Pacer Technology, In re</i> , 02-1602, slip op. at 4 (Fed. Cir. August 4, 2003)	26
<i>Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.</i> , 73 F.3d 1085 (Fed. Cir. 1995)	13, 21
<i>Rouffet, In re</i> , 149 F.3d 1350 (Fed. Cir. 1998)	17, 22
<i>Schreiber, In re</i> , 128 F.3d 1473 (Fed. Cir. 1997)	18
<i>Thrift, In re</i> , 298 F.3d 1357 (Fed. Cir. 2002)	22

Statutes

5 U.S.C. § 706(2)(E)	13
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35 U.S.C. § 103	27
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RULE 47.5 STATEMENT OF RELATED CASES

(a) The Director is not aware of any other appeal involving the underlying decision in this case that was previously before this or any other appellate court.

(b) The Director is also not aware of any pending case in this or any other court that will directly affect, or be directly affected by, this Court's decision in this appeal.

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I. STATEMENT OF THE ISSUE

Pro se applicant, Raymond Anthony Joao's (Joao), invention relates to an educational video on demand system. The alleged unique patentable feature is restarting a stopped video at a point earlier than where it was stopped. Educational video-on-demand systems were well known, as exemplified by Houstis. Dunn discloses a video-on-demand system that restarts programs by replaying a portion of the content. Joao does not dispute that Houstis and Dunn disclose the claimed elements.

Thus, the primary disputed issue on appeal is whether substantial evidence supports the Board's determination that a person of ordinary skill in the art would

have been motivated to add a reminder feature to Houstis' system especially given Dunn's teaching that adding such a feature would be desirable because the viewer will be reminded of content presented prior to the point where the video was stopped.

II. STATEMENT OF THE CASE

This case involves patent application 09/515,060 ('060 application), entitled "Apparatus and Method for Providing Educational Materials and/or related Services in a Network Environment." The examiner rejected the claims as obvious and the Board affirmed the examiner's decisions. Joao has now appealed.

III. STATEMENT OF THE FACTS

A. Joao's Invention

Joao's invention is directed to a method and apparatus for providing educational videos to an individual. A20.¹ To view a video, the individual makes a request. *Id.* A processing device processes the request, and retrieves the video materials from a memory device. *Id.* A transmitter sends the beginning of the video materials to the individual. *Id.* If the video is stopped before it is completed, the processing device stores the location in the video where the video was stopped.

¹Citations to the Joint Appendix are referred to as "A_" citations to Joao's Brief as "Br. at _."

Id. If the individual restarts the video, the processing device sends the individual the beginning of the balance of the unseen video with a portion of what was previously viewed before the video was stopped. *Id.* For example, if the individual stops a 90 minute video after watching the first 30 minutes, when the video is resumed, it would restart at the 28 minute mark or earlier. The amount of video that is replayed (in our example, 2 minutes) may be programmed into the system or selected by the individual. A450.

Representative claim 1 states:

1. An apparatus for providing educational materials, comprising:
 - (A) a processing device for processing a request from an individual to receive educational material, wherein said educational material is at least one of video material, audio material, and video and audio material;
 - (B) a memory device for storing said educational material;
 - (C) a transmitter for transmitting said educational material to the individual in response to said request to receive said educational material, wherein said transmitter is controlled by said processing device; and
 - (D) a receiver for receiving a transmission termination signal from the individual,
 - (E) wherein said processing device terminates the transmission of said educational material in response to the termination signal, and further wherein said processing device at least one of identifies, records, and stores, a first location, wherein said first

location is the location in said educational material where the transmission of said educational material is terminated, and further wherein a subsequent transmission of said educational material to the individual commences from a second location which is located before said first location in said educational material, and further wherein said subsequent transmission of said educational material includes a transmission of at least a portion of said educational material previously transmitted to the individual.

A20 (paragraph letters and emphasis added).

The final clause in representative claim 1 is underlined to emphasize the key disputed limitation.

B. The Prior Art

Representative claim 1 is rejected pursuant to 35 U.S.C. § 103(a) based on Houstis in view of Dunn. A6. The additional representative dependent claims are rejected based on Houstis, Dunn, Dwyer, Goldberg, and Hamalainen.² *Id.*

²Houstis, "Internet, Education, and the Web," Proceedings of WET ICE, pgs. 27-32 (1996), A510-515; United States Patent No. 5,721,829, issued February 24, 1998, A301-315; Dwyer, "Creating a Virtual Classroom for Interactive Education on the Web," pgs. 1-9 (WWW 1995), A484-492; Goldberg, "World Wide Web - Course Tool: An Environment for Building WWW-Based Courses," Fifth Int'l World Wide Web Conference, pgs. 1-16 (May 1996), A494-509; and Hamalainen, "Electronic Markets for Learning: Education Brokerages on the Internet," Communications of the ACM, pgs. 1-9 (June 1996), A545-553.

1. Houstis

Houstis discloses an apparatus that provides a virtual classroom operating on a class-on-demand server. A512, right col. Houstis' apparatus transmits educational materials to students over the Internet, the web, or other network environment. A510. Students access the server at any time and from any location. A511, left col.; A512, right col. The materials are transmitted in an interactive multimedia format that allows the student to control the flow of the materials using a point-and-click device such as a mouse. A511, left col. Students retrieve the materials through machines having high bandwidth cable connections. A513, left col. Houstis discloses using cryptographic protocols to restrict access to the class-on-demand server. A511, left col.; A512, right col. Houstis notes that the materials may be digitized and stored on a digital video server. A515, right col.

2. Dunn

Dunn, entitled "System For Automatic Pause/Resume . . . So That A Portion Of The Content Is Repeated" (A309)(emphasis added), discloses an interactive multimedia system which operates in a video-on-demand (VOD) mode that allows viewers to order video programs such as "movies, video games, television shows, and other [types of] video content programs" from their home and watch them at any time. A310-315; A309, col. 1, lines 55, 64-67. Dunn's

system automatically pauses the video when the viewer switches from the cable channel. A309, col. 2, lines 11-16. When the viewer switches back to the cable channel, the system automatically resumes playing the video with a portion of the content repeated. A309, col. 1, lines 1-6; A309, col. 2, lines 16-18. Dunn's system has headend 22 which includes a continuous media server (CMS) 40 with program storage 42 that is used to store the video programs as digital video data streams at predetermined or mapped locations. A310, col. 3, lines 46-48, 58-59. Video content playing unit 48 locates and retrieves a desired video from the CMS database in response to a request from set-top box (STB) 26a-26d. A310, col. 4, lines 39-43.

If the viewer switches from playing a video to a non-VOD channel (*e.g.*, channels with traditional broadcasts or cable programs), Dunn's system automatically pauses the playing video. A311, col. 6, lines 17-20. Video content playing unit 48 stores the pause point in the video in pause/resume register 104. A312, col. 7, lines 52-55. When the viewer returns to the VOD channel, video content playing unit 48 utilizes the pause point to retrieve and transmit the unfinished program to the viewer. A312, col. 7, lines 65-67; col. 8, lines 8-10.

The pause point may also be a location in the video before the spot where the video was automatically paused. A312, col. 8, lines 6-8. In such an instance,

when the viewer returns to the VOD channel, video content playing unit 48 transmits the unfinished video with a portion of what was previously seen repeated. A312, col. 8, lines 1-3 (“program can be optionally rolled back so that a portion of the program is repeated”); A308, Fig. 7, step 234. Dunn teaches that the benefit of repeating some of the video is that the viewer will be reminded of the sequence of events that occurred prior to the point where the viewer stopped watching the video. A312, col. 8, lines 1-3 (“program is repeated to refresh the viewer with the sequence of events where the viewer last left off”).

3. Dwyer

Dwyer discloses a virtual classroom for interactive education on the web. A484-492. Dwyer’s system includes a video recording device to provide video conferencing. A489. Dwyer explains that video conferencing enhances the electronic classroom by providing visual and audio cues which help the instructor and students form an informal rapport when a class is in session. *Id.*

4. Goldberg

Goldberg discloses a system (Web-CT) for building world wide web based courses. A494-509. Goldberg discloses a number of tools used to facilitate the learning process. A505. One of the tools is the Timed Quiz-Taking Tool. Once a student accesses a quiz in Goldberg’s system, the student’s start time, stop time,

and answers are stored on a server. *Id.* The student is required to submit the answers to the server before the end of the time allotted for the quiz. *Id.* The quiz results are reviewed by the course administrator. *Id.*

Goldberg also discloses a Multiple-Choice Question Tool. *Id.* Each multiple-choice question is followed by a list of potential answers. *Id.* After the student submits an answer to a question, the system indicates whether the selected answer is correct, and provides an explanation for the actual correct answer.

A506.

Goldberg discloses that Web-CT is a simple-to-use environment for building WWW based courses and incorporating various tools. A495. “Web-Ct is also highly adaptable in that new course tools can be added at any time.” A496.

5. Hamalainen

Hamalainen discloses an electronic market system that provides educational products to students through education brokerages over the Internet. A545-553. The education brokerages match students with courses available from any number of educational suppliers. A546. Hamalainen system ensures that financial transactions between the students and the educational suppliers are secure. A548.

C. The Board Decision

The Board affirmed the rejection of claims 1, 2, 4-7, 9, 11, 16-19, 21 and 24-26 as obvious in view of Houstis and Dunn. A6; A18. The Board found that Houstis and Dunn have “significant overlapping and cumulative teachings.” A12.

The Board found that Houstis discloses an interactive multimedia virtual classroom that allows universities to transmit educational materials to its students over the Internet, the web, or other types of network environment. A8; A10.

Houstis’ system is run on a class-on-demand server that utilizes high bandwidth cable connections capable of transmitting the educational materials with digital quality. A10. Cryptographic protocols are used to prevent unauthorized access to the server. A9. The Board found that the interactive nature of Houstis’ system enables the student to control the flow of the educational materials by starting, stopping, and repeating all, or a portion, of the educational materials. A8.

Dunn discloses an interactive multimedia system that allows viewers to order movies, video games, television shows and other video content programs in a video-on-demand mode. A10. Once a video is ordered, it can be viewed at any time. A10-11. Dunn’s system uses analog to digital and digital to analog converters to transmit digital videos through high bandwidth cable connections from a headend server to the viewer. *Id.* Each viewer is identified by a specific

code. A9; A15. The Board found that with Dunn's system, a video may be purchased, repurchased, stopped, or restarted with some of the video rolled back so that the viewer may view a portion of the video previously seen. A8-9.

The Board agreed with the examiner that one of ordinary skill in the art would be motivated to combine Dunn's pause and resume features with Houstis to "refresh the viewer with the sequence of events before the viewer last stopped receiving the broadcast." A9. Accordingly, the Board concluded that it would have been obvious to one of ordinary skill in the art to enhance the Houstis system with the reminder features in Dunn.

The Board affirmed the examiner's finding that the additional features of dependent claims 12-15, 22 and 23 were suggested by the Dwyer, Goldberg, or Hamalainen references. A17-18. The Board found Joao's arguments about these dependent claims were unpersuasive because Joao discussed only the underlying Houstis and Dunn combination, and failed to discuss the specific suggestions in Dwyer, Goldberg, or Hamalainen. A17-18. That is, Joao did not argue that the particular suggestions relied on could not be found in these references, nor did Joao argue that Dwyer, Goldberg, or Hamalainen cannot be combined with Houstis and Dunn. *Id.*

Simply put, the Board found that Joao failed to rebut the prima facie case of obviousness. Joao did not seek rehearing and this appeal followed.

IV. SUMMARY OF THE ARGUMENT

Substantial evidence supports the Board's conclusion that representative claim 1 would have been obvious over Houstis in view of Dunn. Joao does not dispute that all of the elements of representative claim 1 are found in the combination of Houstis and Dunn. Houstis discloses a system that provides an interactive multimedia virtual classroom that allows universities to transmit educational materials to students over the Internet or other network environment. The only claimed limitation not found in Houstis is resuming transmission of a previously stopped video so that a portion of the video is repeated.

Dunn discloses this missing element. Dunn discloses an interactive multimedia system that operates through local cable providers. Dunn's system permits the viewer to pause a video and then resume the video so that a portion of the video is repeated. Dunn discloses that the benefit of having its pause and resume features is that the viewer will be reminded of the sequence of events that occurred prior to the video being stopped. Thus, the benefits expressed in Dunn would have motivated one of ordinary skill in the art to add Dunn's reminder features to Houstis interactive multimedia system.

Joao's argument that Dunn should not be combined with Houstis in light of Houstis' teaching that its system is "radically different" from traditional distance learning systems that use cable companies fails because Joao misapprehends the plain teachings of Dunn and Houstis. Dunn's interactive multimedia system does not suffer from the significant drawback – showing live lectures at predetermined times – that Houstis clearly explains plagues the traditional distance learning systems. Rather, Dunn allows viewers to watch videos at any desired time. Accordingly, the Board properly combined the references.

Substantial evidence also supports the Board's conclusion that claims 12-15, 22 and 23 would have been obvious over the prior art. Joao fails to address the evidence the Board relied upon to reject these dependent claims. More specifically, Joao does not dispute the teachings the Board relied on, or the motivation to combine the references. As a result, Joao fails to rebut the prima facie case of obviousness.

V. ARGUMENT

A. Standard of Review

Joao has the burden of showing that the Board committed reversible error. *In re Caveney*, 761 F.2d 671, 674 (Fed. Cir. 1985). Obviousness is a legal question based on underlying factual findings. *See, e.g., In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). What a reference teaches, including whether it teaches toward or away from the claimed subject matter, is a question of fact. *Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.*, 73 F.3d 1085, 1088 (Fed. Cir. 1995). Similarly, whether a person of ordinary skill would be motivated to combine references is a question of fact. *Gartside*, 203 F.3d at 1316.

This Court upholds Board factual findings supported by substantial evidence. 5 U.S.C. § 706(2)(E); *Gartside*, 203 F.3d at 1316. Substantial evidence “means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229-230 (1938). “[W]here two different, inconsistent conclusions may reasonably be drawn from the evidence of record, an agency’s decision to favor one conclusion over the other is the epitome of a decision that must be sustained upon review for substantial evidence.” *In re Jolley*, 308 F.3d 1317, 1329 (Fed. Cir. 2002).

**B. Representative Claim 1 Would Have Been Obvious In View of
Houstis and Dunn**

**1. It Is Undisputed That Houstis And Dunn Disclose Every
Element Of Representative Claim 1³**

Houstis discloses an interactive multimedia virtual classroom that allows universities to transmit educational materials to its students over the Internet, the web, or other network environment. A8; A10; A511, left col.; A512, right col. Houstis' proposed system operates on a class-on-demand server that allows the students to view the materials as their schedule permits. A10; A511, left col.; A512, right col. The only claimed limitation not found in Houstis is clause (E) – wherein the processing device resumes transmission of a previously stopped video so that a portion of the video is repeated. A31-32; A188.

Dunn discloses the one claimed element missing from Houstis. *Id.* As its title reflects (“System For Automatic Pause/Resume Of Content . . . So That A Portion Of The Content Is Repeated” (A301) (emphasis added)⁴, Dunn discloses

³Joao stated that independent claims 1, 16, 18, and 25 stand or fall with independent claim 1. Br. at 9. Moreover, dependent claims 2, 4-7, 9, 11, 17, 19, 21, 22, 24 and 26, which depend from the independent claims, were not argued separately (A14), and therefore stand or fall with representative claim 1. *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

⁴“System For Automatic Pause/Resume Of Content Delivered On A Channel In Response To Switching To And From That Channel And Resuming So That A Portion Of The Content Is Repeated” (A301).

an interactive multimedia system that stops and resumes transmission of a video with a portion of the previously viewed content repeated. A301. Dunn's system operates in a video-on-demand (VOD) mode that allows viewers to order video programs such as movies, games, TV shows, and other types of video content programs from their home through their local cable provider. A8; A10; A11; A309, col. 1, lines 55-56, 64-66.

Dunn explains in detail that if the viewer switches from playing a video to a non-VOD channel (*e.g.*, channels with traditional broadcasts or cable programs), Dunn's system automatically pauses the playing video. A311, col. 6, lines 17-20. Video content playing unit 48 stores the location where the video was paused. A311, col. 6, lines 39-44, 64-67. When the viewer returns to the VOD channel, video content playing unit 48 retrieves the previously playing video from pause/resume register 104 and resumes transmission at a location in the program before where the video was paused. A312, col. 7, lines 65-67; A312, col. 8, lines 1-3, 8-10.

Joao does not dispute that all the limitations of representative claim 1 are found in the combination of Houstis and Dunn. The following chart compares representative claim 1 with the undisputed teachings of Houstis and Dunn.

Claim 1	Houstis	Dunn
a processing device from processing a request from an individual to receive educational materials	class-on-demand server that students access to order educational materials (A10; A512, right col.)	continuous mode server that viewers access to order videos (A10; A310, col. 3, lines 64-66)
a memory device for storing the educational materials	teaching that the class-on-demand server stores the educational materials (A10; A512, right col.)	program storage 42 (A10; A310, col. 3, lines 46-48)
a transmitter for transmitting the educational materials to the individual in response to a request educational materials	teaching that the class-on-demand server sends students educational materials in full multimedia presentations (A10; A512, right col.)	distribution node 34; Fig. 1 (A302, Fig. 1; A309, col. 2, lines 60-63)
a receiver for receiving a transmission termination signal from the individual	teaching that students “control the flow” of the educational materials using a point-and-click device (A8; A511, right col.)	set-top-box 26a-d; Fig. 1 (A8; A302, Fig. 1; A311, col. 6, lines 17-20)
wherein the processing device terminates the transmission of the educational materials and stores the location in the educational material where the transmission of said educational material is terminated, and further <u>resumes transmission of the educational material at a location which is before the terminated location and includes at least a portion of the educational material previously transmitted to the individual.</u> (Emphasis added).	teaching that students can control “the flow of the lecture” of the educational materials using a point-and-click device (A8; A511, right col.)	continuous mode server (CMS) pauses a playing video when the user switches to a non-video-on-demand channel (A311, col. 6, lines 17-20); CMS includes content playing unit 48 that stores the pause point (A312, col. 7, lines 52-55); <u>a subsequent transmission occurs before the pause point such that at least a portion of the previously viewed video is repeated</u> (A312, col. 8, lines 1-3; A308, Fig. 7, step 234)

Therefore, substantial evidence supports the Board’s finding that Houstis and Dunn disclose all of the elements recited in representative claim 1.

2. One Of Ordinary Skill In The Art Would Have Been Motivated To Add Dunn's Reminder Features To Houstis' Interactive Multimedia System

Substantial evidence supports the Board's determination that one of ordinary skill in the art would have been motivated to add Dunn's reminder features to Houstis' interactive multimedia system. Evidence to combine references may flow from the references themselves, the problem to be solved, or the knowledge of a person of ordinary skill in the art. *See In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998). Here, the Board agreed with the examiner that the motivation to add Dunn's reminder features to Houstis' interactive multimedia system is expressly provided by Dunn. A9; A32; A188-189.

Dunn teaches pausing a video and resuming the video with a portion of the video repeated. *Id.*; A312, col. 8, lines 1-3. Dunn teaches that the benefit of its reminder features is that it reminds the viewer of the sequence of events that occurred prior to the video being stopped. A9; A32; A188; A312, col. 8, lines 1-3. Thus, the Board properly agreed with the examiner that one of ordinary skill would have been motivated to add the reminder teachings of Dunn to Houstis to remind the viewer of what was last shown before the video was stopped.

Accordingly, the Board's motivation finding is supported by Dunn's express disclosure, and hence, substantial evidence. *See Gartside*, 203 F.3d at 1320

(holding that disclosures in prior art provide substantial evidence supporting the Board's motivation finding).

a. Houstis and Dunn are not “radically different” as Joao alleges

Joao argues repeatedly that the Board failed to discuss Houstis' alleged teaching that its system is “radically different” from traditional distance learning systems, or as Joao puts it, cable based systems. Br. at 12, 15, 18, 21. And since Dunn is a cable based system, Joao asserts that this purported failure was reversible error by the Board. Br. at 21. To the contrary, the Board did not address this teaching in Houstis because Joao did not argue it before the Board.

In his 105-page appeal brief before the Board, Joao never argued that Houstis teaches that its system is “radically different” from Dunn. *See*, A40-145. Joao's primary arguments below were that the examiner improperly found that his invention is in the same field of endeavor as Dunn, and that the examiner had relied on impermissible hindsight. *See, e.g.*, A63 and A66. Thus, the Board did not discuss Houstis' statement about traditional distance learning systems being “radically different” because Joao failed to argue it. Moreover, since Joao's teaching away argument was not raised before the Board, this Court should not

consider it. *See, e.g., In re Hyatt*, 211 F.3d 1367, 1373 (Fed. Cir. 2000); *In re Schreiber*, 128 F.3d 1473, 1479 (Fed. Cir. 1997).

If Joao had argued before the Board that there is no motivation to combine Houstis and Dunn because Houstis teaches that its system is “radically different” from Dunn’s cable based system, then the Board would have found Joao’s arguments unpersuasive because he misapprehends the plain teachings of the references. Contrary to Joao’s argument, Houstis does not teach that its system is “radically different” from Dunn’s cable system. A511, left col. Rather, Houstis teaches that its proposed interactive multimedia system, which enables students to view educational materials at any desired time, is “radically different” from traditional distance learning practices, such as satellite transmissions of live classroom lectures shown on some local cable channels, that require students to observe lectures at predetermined times. *See, id.* (“Contrast [Houstis] with the traditional approaches where all the students take the class at a predetermined time”) (emphasis added).

Unlike the traditional distance learning systems that Houstis criticizes, Dunn teaches an interactive multimedia system that allows the viewer to watch a video at any desired time. A309, col. 1, lines 63-67. Dunn explains that the video-on-demand mode enables viewers to watch videos “on their own time schedule.” *Id.*

Accordingly, because Joao fails to appreciate the clear teachings of Houstis and Dunn, Joao's argument is unpersuasive.

Moreover, the numerous similarities between Houstis and Dunn belie Joao's teaching away argument. Indeed, the Board found that Houstis and Dunn contain a myriad of "significant overlapping and cumulative teachings." A12. For example, the Board found that both references teach: (1) traditional systems that transmit videos through local cable companies were known (A12); (2) interactive multimedia systems (A8; A9); (3) stopping, starting, or even repeating portions of a given video (A8; A15); (4) computerized environments having servers, interface units, etc. (A9; A10); (5) high bandwidth connectivity that delivers digital videos (A10; A15); (6) analog to digital and digital to analog converters (A11); (7) identifying the user (A15); (8) receiving an order for a video and identifying the video requested (A16); and (9) the user at a location remote from the source of the video (A16). Therefore, after examining the many common features taught by the Houstis and Dunn, one of ordinary skill would have been led towards, not away from the teachings of Dunn.

Furthermore, Houstis does not teach away from adding Dunn's reminder teachings. "A reference may be said to teach away when a person of ordinary skill, upon examining the reference, would be discouraged from following the path

set out in the reference, or would be led in a direction divergent from the path that was taken by applicant.” *Para-Ordinance*, 73 F.3d 1085, 1090 (Fed. Cir. 1995)(quoting *In re Gurley*, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994)). To teach away, a reference must indicate that a certain feature “should not” or “cannot” be used with other references. *Id.* Nowhere does Houstis state or even suggest that a reminder feature, as taught by Dunn, should not be used with an interactive multimedia distance learning system that transmits videos over the Internet. *See*, A510-515. In fact, Houstis proposes a system that allows the student to learn at a “self-paced” speed. A511, left col. Dunn teaches that viewers can pause and resume the video at any time giving them an opportunity to understand what they are watching at their own speed. A309, col. 1, lines 66-67. Thus, Houstis’ teachings actually teach one of ordinary skill in the interactive multimedia art that a “self-paced” system is desirable. Dunn’s reminder features are compatible with the Houstis suggestion.

b. The Board relied on the explicit teachings of the prior art, not hindsight, to combine Houstis and Dunn

The Board relied on the express teachings of an improved feature in the secondary reference as a motivation to enhance Houstis. A8-9. Joao argues that the Board relied on hindsight rather than motivation to combine Houstis and Dunn.

Br. at 17-20. In Joao's view, this alleged failure is inconsistent with this Court's decisions in *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998), and *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999). *Id.* The reasoning articulated by the Board is specific and particularized as required by this Court in obviousness cases. *See, In re Thrift*, 298 F.3d 1357, 1364 (Fed. Cir. 2002) (Board made proper obviousness rejection based on identifying benefits of adding feature from secondary reference to the primary reference).

Moreover, both *Rouffet* and *Dembiczak* are distinguishable from the facts of the instant case. In *Rouffet* and *Dembiczak*, this Court reversed the Board's obviousness conclusions because in each case, the Board failed to make findings regarding the motivation to combine the prior art. *Rouffet*, 149 F.3d at 1358; *Dembiczak*, 175 F.3d at 999. In fact, this Court stated that showing a motivation to combine the references is the best defense against the dangers of a hindsight-based obviousness analysis. *Dembiczak*, 175 F.3d at 999. Thus, this Court held that the Board must articulate a reason why one of ordinary skill would have been motivated to combine the teachings of the prior art. *Rouffet*, 149 F.3d at 1359; *Dembiczak*, 175 F.3d at 999.

In this case, the Board followed this Court's instructions by specifically finding that the motivation to add the reminder teachings of Dunn is to refresh the

viewer of what was viewed before the video was last stopped. A8-9; A32; A188-189; A312, col. 8, lines 1-3. This finding is supported by substantial evidence since it is expressly taught in Dunn. A312, col. 8, lines 1-3 (“a portion of the program is repeated to refresh the viewer with the sequence of events where the viewer last left off”). Therefore, the Board here made particularized findings concerning the motivation to combine the prior art.

C. Dependent Claims 12-15, 22 And 23 Would Also Have Been Obvious In View Of Additional Prior Art

1. Dependent Claim 12 Would Have Been Obvious In View Of Houstis, Dunn, and Dwyer

Claim 12, which depends from claims 11 and 1, adds the further limitation of a video recording device for facilitating video conferencing between users of the apparatus. Dwyer’s system teaches the claimed video device that facilitates video conferencing. A17; A189; A489. Specifically, Dwyer teaches a virtual classroom system that includes a video recording device to provide video conferencing.

A489. The examiner found that Dwyer’s video conferencing improves electronic classrooms by providing visual and audio cues which help instructors and students better interact with one another when a class is in session. A17; A189; A489. Accordingly, the Board properly agreed with the examiner that the combined teachings of Houstis, Dunn, and Dwyer render claim 12 obvious.

2. Dependent Claim 15 Would Have Been Obvious In View of Houstis, Dunn, and Hamalainen

Claim 15 depends from claim 1 and adds the further limitation that the processing device processes a financial transaction involving educational materials. The examiner found that Hamalainen discloses an electronic market for distance learning system which permits financial transactions through a network system. A18; A191; A545. Hamalainen explicitly discloses that its system is effective in ensuring that electronic payments are securely delivered from the student to the supplier. A548. Thus, the Board correctly agreed with the examiner that Houstis, Dunn, and Hamalainen render claim 15 unpatentable.

3. Dependent Claims 13, 14, 22, and 23 Would Have Been Obvious In View of Houstis, Dunn, And Goldberg

Claim 13, which depends from claim 1, adds the limitation of an input. Claim 14, which also depends from claim 1, adds the limitation of a notification signal containing information that is transmitted. Claim 22 adds the further limitation to representative claim 1 that the processing device determines the progress of the individual. Claim 23 adds the limitation of a first signal that is transmitted to independent claim 18.⁵

⁵Joao states in his brief to this Court that independent claim 18 stands or falls with representative claim 1. *See Br.* at 9.

Goldberg discloses the limitations in each of these dependent claims. A17-18; A190-191. Goldberg discloses a system for building world wide web based educational courses. A494. Goldberg's system includes a timed quiz-taking tool that gauges the student's level of understanding in each course. A190; A505. Once the student accesses a quiz in Goldberg's system, the student's start time, stop time, and answers are stored on the server. *Id.* For the student's convenience, Goldberg's system calculates the amount of time remaining in the quiz. *Id.* Through an input, the student is required to enter the answers, and then transmit the answers to the server before the end of the time allotted. *Id.* The quiz results are reviewed by the course administrator. A505.

Goldberg also discloses a Multiple-Choice Question Tool. A505-506. After the student submits an answer to a question, Goldberg's system generates a signal that indicates whether the selected answer is correct. A506. The signal is transmitted to the student along with the correct answer and an explanation for the correct answer. A506.

The examiner found that enhancing the suggested Houstis and Dunn system with Goldberg's features would have improved the Houstis and Dunn system. A190. The Board agreed that such enhancements would have been obvious. A17-18. Therefore, substantial evidence supports the Board's finding that claims

13, 14, 22 and 23 would have been obvious based on Houstis, Dunn, and Goldberg.

4. Joao Does Not Address The Evidence Of Record With Respect To The Dependent Claims, And Thus Fails To Rebut The Prima Facie Case Of Obviousness

Joao fails to address the evidence the Board relied upon to reject dependent claims 12-15, 22 and 23. Br. at 24-29. After the USPTO established a prima facie case of obvious, the burden shifted to Joao to come forward with evidence and/or an argument supporting patentability. *See, e.g., In re Pacer Technology*, 02-1602, slip op. at 4 (Fed. Cir. August 4, 2003); *In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002). Joao failed to satisfy his burden. First, Joao did not present any evidence to support his argument. Br. at 24-29.

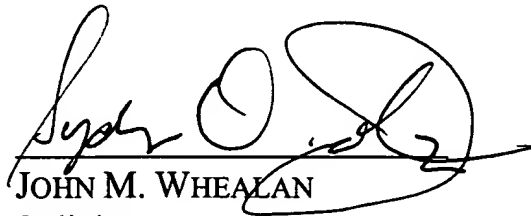
Second, with respect to the rejections for dependent claims 12-15, 22 and 23, Joao does not dispute the Board's findings regarding the teachings of each individual reference, or the motivation to combine the cited references. *Id.* In fact, Joao does not separately argue the merits of the rejections for these claims other than to incorporate by reference the arguments presented for the combination of Houstis and Dunn, and to assert that the cited prior art references do not teach the limitations in the claim (*e.g.*, concerning dependent claim 12, Joao argues that Houstis, Dunn, and Dwyer do not teach the limitations in claim 12). *Id.*

However, as discussed above, Dunn expressly provides the motivation to combine it with Houstis, and the combined references cited in the rejections disclose every limitation in the claims. Thus, the Board properly found that dependent claims 12-15, 22 and 23 are obvious, and Joao fails to rebut the Board's prima facie case of obviousness.

V. CONCLUSION

Since substantial evidence supports the Board's determination that all pending claims would have been obvious pursuant to 35 U.S.C. § 103, this Court should affirm the Board's decision.

Respectfully submitted,



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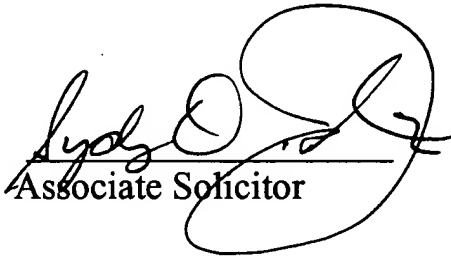
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CERTIFICATE OF SERVICE

I hereby certify that on August 18, 2003, I caused two copies of the foregoing BRIEF FOR APPELLEE DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE to be sent overnight delivery to:

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